

NEW LEAFHOPPER SPECIES OF *COELIDIA* WITH A
REVISED KEY AND NOTES ON HOMONYMY AND DISTRIBUTION
(HOMOPTERA: CICADELLIDAE, COELIDIINAE)

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ABSTRACT.— Five new species of *Coelidia* are described and illustrated. These include *panamensis* and *simplex* from Panama and *retrorsa*, *cochloea*, and *tortula* from Brazil. A revised key is also presented for 13 of the 14 species for which males are known. *Coelidia gladia* is proposed as a new name for *Coelidia spangbergi* Nielson, 1982 nec *Coelidia spangbergi* Linnavuori, 1956 and *Coelidia spangbergi* Metcalf, 1964.

The nominate genus *Coelidia* Germar of the subfamily Coelidiinae was treated in Part IV of my revision of the tribe Coelidiini (Nielson 1982). In that work nine species were included in a conceptually restricted group that formerly encompassed over 200 species represented in all zoogeographical regions of the world. In this paper five new species are described with a revised key to 13 of 14 species for which males are known. A new name is proposed for *Coelidia spangbergi* Nielson, 1982, preoccupied by *Coelidia spangbergi* Linnavuori, 1956, and *Coelidia spangbergi* Metcalf, 1964.

The genus *Coelidia* is characterized as having a large elevated crown that is usually broader than the width of the eyes, carinate laterally, and produced distally beyond the anterior margin of the eyes. The clypeus has an incomplete median longitudinal carina in some species, including the type species, *venosa* Germar. The clypeal carina is the primary tribal character that separates Teruliini

from Coelidiini. It is absent in all genera of the latter tribe except *Clypeolidia* Nielson and 4 of 14 known species of *Coelidia*, where it is present but incomplete, i.e., does not reach the transclypeal suture from its anterior origin.

The genitalic characters of *Coelidia* include a pair of prominent processes on the caudal margin of the male pygofer, usually very long styles, and an elongate aedeagus that usually has 1–2 distal processes or a recurved extension of the shaft.

The present distribution of the genus is Neotropical. *Coelidia venosa* is the only widespread species and it ranges from Brazil to Colombia. Four species occur in Brazil, four in Colombia, and four in Panama. One species is common to Brazil and Colombia and one is common to Colombia and Panama, suggesting that Colombia is the center of the southern (Brazil) and northern range (Panama) of the genus.

Key to Males of *Coelidia*²

- 1. Aedeagus with 1–2 prominent distal or subdistal processes 2
- Aedeagus without such processes, if present, only about as long as wide 11
- 2(1). Aedeagus with 1 distal process 3
- Aedeagus with 2 distal processes 7
- 3(2). Style short, length about equal to arms of connective (Fig. 3) 4
- Style long, length much greater than arms of connective (Fig. 8) 5

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²Includes 13 of the 14 known species; *staltii* (Spangberg), known only from ♀ is not keyed.

- 4(3). Aedeagus with short distal process, process about 1/4 length of shaft (Fig. 862, Nielson 1982); pygofer with ornate caudodorsal process (Fig. 858, Nielson 1982) *venosa* Germar
 — Aedeagus with long distal process, process about 1/2 length of shaft (Fig. 4); pygofer with broad, simple caudodorsal process (Fig. 1) *retrorsa*, n. sp.
- 5(3). Pygofer with long, narrow, sharply pointed caudoventral process (Figs. 864 and 898, Nielson 1982) 6
 — Pygofer with a long, narrow, but distally enlarged caudoventral process (Fig. 7) *panamensis*, n. sp.
- 6(5). Pygofer with very long caudoventral process, process extending distally beyond apex of caudodorsal process (Fig. 898, Nielson 1982); aedeagus with short distal process, process 2–3 times as long as wide in lateral view (Fig. 902, Nielson 1982) *attenuata* Nielson
 — Pygofer with short caudoventral process, process not reaching apex of caudodorsal process (Fig. 864, Nielson 1982); aedeagus with long distal process, process 5–8 times as long as wide in lateral view (Fig. 868, Nielson 1982) *gernari* Nielson
- 7(2). Aedeagus with 1 distal process and 1 subdistal process, processes unequal in length and in configuration (Figs. 873, 876, 882, Nielson 1982) 8
 — Aedeagus with 2 distal processes, processes nearly equal in length and in configuration (Fig. 17) *tortula*, n. sp.
- 8(7). Aedeagus with long subdistal process, apex reaching to about midlength of shaft in lateral view (Figs. 876 and 882, Nielson 1982) 9
 — Aedeagus with short subdistal process, apex not reaching midlength of shaft in lateral view (Fig. 873, Nielson 1982) *atra* Walker
- 9(8). Style in dorsal view very narrow at distal 2/3, narrower than aedeagal shaft (Figs. 879 and 884, Nielson 1982) 10
 — Style in dorsal view broad at distal 2/3, as broad as or broader than aedeagal shaft (Figs. 877, Nielson 1982) *nigra* (Spangberg)
- 10(9). Aedeagus with very broad subdistal process, process broader than aedeagal shaft in dorsal and lateral views (Figs. 881 and 882, Nielson 1982) *gladia*, n. name
 — Aedeagus with very narrow subdistal process, process narrower than aedeagal shaft in lateral view (Fig. 888, Nielson 1982) *gorgonensis* Nielson
- 11(2). Aedeagus and style narrowed distally (Figs. 21 and 23) 12
 — Aedeagus and style greatly enlarged distally (Figs. 891 and 894, Nielson) *bulbata* Nielson
- 12(11). Pygofer with ornate caudodorsal process, process enlarged basally with slender curved distal process (Fig. 19) *cochloea*, n. sp.
 — Pygofer with long caudodorsal process, process narrow, fingerlike (Fig. 25) *simplex*, n. sp.

Coelidia retrorsa, n. sp.

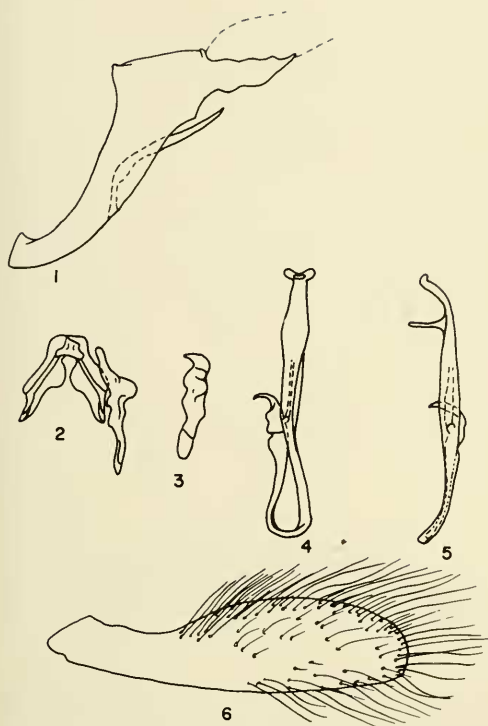
(Figs. 1–6)

Length: ♂ 10.00 mm.

General color deep ochraceous with fuscous costa and 5 narrow longitudinal pale flavous stripes on pronotum; veins of fore-

wings flavous anteriorly, becoming spotted with fuscous markings posteriorly.

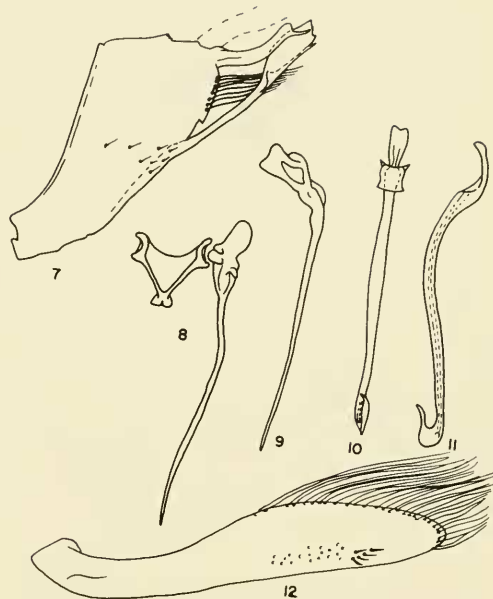
Head small, much narrower than pronotum, anterior margin obtusely angulate; crown produced beyond anterior margin of eyes, broad, width greater than width of eyes,



Figs. 1-6. *Coelidia retrorsa*: 1, Male pygofer, lateral view. 2, Connective and right style, dorsal view. 3, Style, lateral view. 4, Aedeagus, dorsal view. 5, Aedeagus, lateral view. 6, Plate, ventral view.

elevated above level of eyes, carinate laterally, foveate on either side of middle, lateral margins parallel; eyes large, elongate-ovoid, occupying less than 2/3 of entire dorsal area of head; pronotum very large, scutellum large; forewing elongate, apex broadly angulate, venation typical, appendix well developed; clypeus long and broad with an incomplete median longitudinal carina, extending from anterior margin to about 2/3 length of clypeus; clypellus long, narrowed basally, expanded distally.

♂. Pygofer in lateral view very narrow with long, narrow caudoventral process and moderately long, broad caudodorsal process; 10th segment long and narrow, without ventral processes; aedeagus asymmetrical, long, slightly tubular, distal part recurved and extending to about midlength of shaft, shaft narrowed along recurved portion, wrinkled and enlarged subapically, becoming slightly hooked distally; gonopore medial on shaft; connective Y-shaped with short stem and long arms; style very short, about as long as



Figs. 7-12. *Coelidia panamensis*: 7, Male pygofer, lateral view. 8, Connective and right style, dorsal view. 9, Style, lateral view. 10, Aedeagus, dorsal view. 11, Aedeagus, lateral view. 12, Plate, ventral view.

arms of connective; plate long, profusely setose.

♀. Unknown.

Holotype (♂), BRAZIL: Amazon, Tonantins, no date, no collector, (NR).

Remarks: This species is similar in general habitus and some male genital characteristics to *venosa* Germar but can be distinguished by the long recurved portion of the aedeagus and by the gonopore that is medial on the shaft.

Coelidia panamensis, n. sp.

(Figs. 7-12)

Length: ♂ 8.40 mm.

General color deep fuscous with 5 narrow flavous longitudinal lines and broad flavous band on lateral margins of pronotum, veins of forewing with flavous spots.

Head small, much narrower than pronotum, anterior margin obtusely angled; crown distinctly produced beyond anterior margin of eyes, broad, width about equal to width of eyes, elevated above level of eyes, foveate medially, lateral margins carinate; eyes large, semiglobular, occupying less than 2/3 of entire dorsal area of head; pronotum

and scutellum very large; forewing elongate, rounded distally, venation typical, appendix well developed; clypeus long and broad, without median longitudinal carina; clypellus long and narrow, expanded distally.

♂. Pygofer in lateral view moderately broad with very long caudoventral process, process narrow at basal 2/3, enlarged at distal 1/3 with small ventral spine, caudodorsal margin with long narrow process, process abruptly pointed distally; aedeagus partially asymmetrical, long, narrow, tubular throughout, recurved distally, distal portion very short and narrow; gonopore subapical; connective broadly Y-shaped with short stem and long arms; style very long, about as long as aedeagus, narrow throughout; plate long and narrow, setose along outer margin at distal half.

♀. Unknown

Holotype (♂), PANAMA: San Blas, near Punta Escoces, 77° 42'W: 8° 48'N., 2-II-79. Caroline Ash (USNM).

Remarks: *Coelidia panamensis* is similar in male genital characteristics to *attenuata* Nielson but can be easily separated by the caudoventral process of the pygofer, which is enlarged distally and bears a ventral spine.

Coelidia tortula, n. sp.

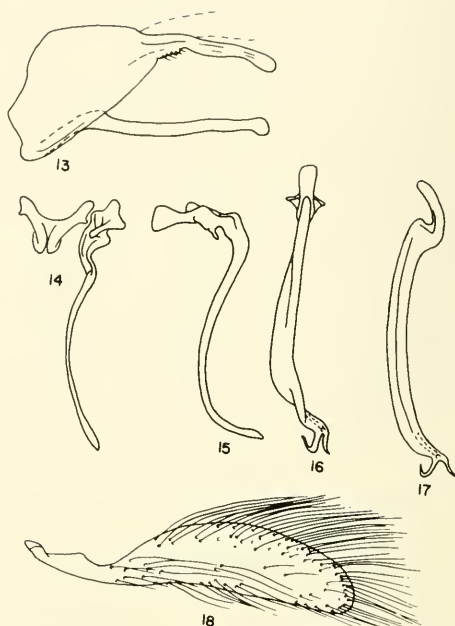
(Figs. 13-18)

Length: ♂, 10.00 mm.

General color fusco-piceous, except for flavous apex on forewing, veins with ochraceous spots.

Head much narrower than pronotum, anterior margin obtusely angled; crown produced beyond anterior margin of eyes, broad, broader than width of eyes, elevated above level of eyes, foveate medially, carinate laterally, eyes semiglobular, large, occupying less than 2/3 of entire dorsal area of head; pronotum and scutellum large; forewing elongate, apex rounded, venation typical, appendix well developed; clypeus long and broad, without median longitudinal carina; clypellus long and narrow, apex expanded.

♂. Pygofer in lateral view moderately broad, with long caudoventral process and shorter caudodorsal process, both processes except for length about equal in width and



Figs. 13-18. *Coelidia tortula*: 13, Male pygofer, lateral view. 14, Connective and right style, dorsal view. 15, Style, lateral view. 16, Aedeagus, dorsal view. 17, Aedeagus, lateral view. 18, Plate, ventral view.

similar in configuration, aedeagus asymmetrical, long, broad, twisted subapically in dorsal view, with 2 narrow, curved, distal processes; gonopore near apex of shaft basad of distal processes; connective broadly Y-shaped, stem short, arms long; style long, narrow, about as long as aedeagus; plate elongate, profusely setose.

♀. Unknown.

Holotype (♂), BRAZIL: Amazon, Fonteboa, no date, no collector (NR).

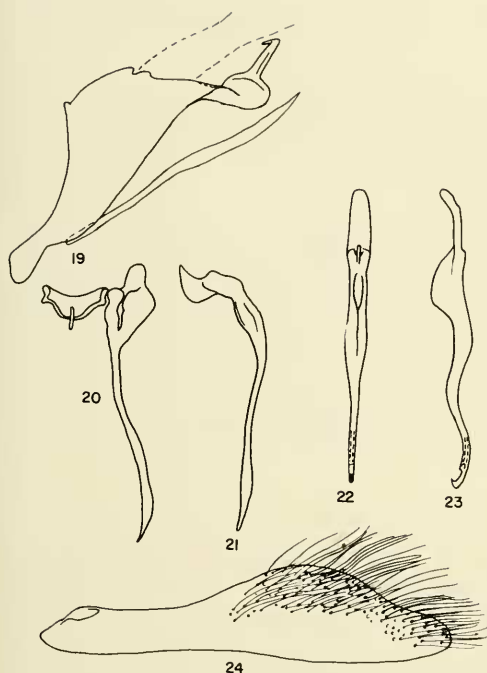
Remarks: This species has no apparent close relatives but is nearest to *atra* Walker. It can be distinguished from all known species of *Coelidia* by the aedeagus with a twisted shaft and the distal processes, which are nearly of equal length and configuration and arise from the apex of the shaft.

Coelidia cochloea, n. sp.

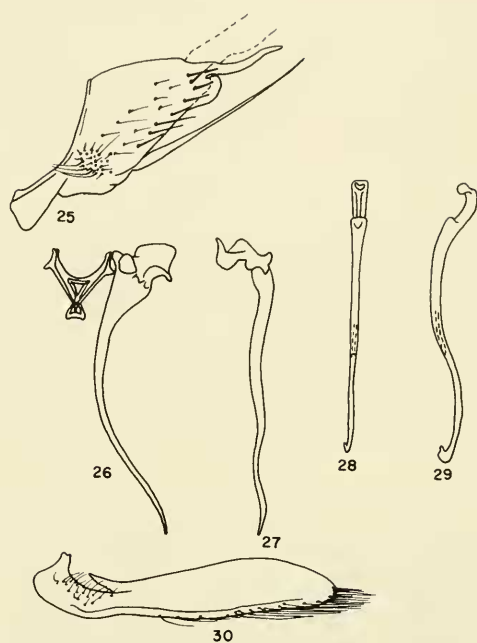
(Figs. 19-24)

Length: ♂, 8.60 mm., ♀, 9.00-9.70 mm.

General color ochraceous, forewings with piceous pigmentation along basal 2/3 of costa and with broad, smoky, fuscous, oblique



Figs. 19-24. *Coelidia cochloea*: 19, Male pygofer, lateral view. 20, Connective and right style, dorsal view. 21, Style, lateral view. 22, Aedeagus, dorsal view. 23, Aedeagus, lateral view. 24, Plate, ventral view.



Figs. 25-30. *Coelidia simplex*: 25, Male pygofer, lateral view. 26, Connective and right style, dorsal view. 27, Style, lateral view. 28, Aedeagus, dorsal view. 29, Aedeagus, lateral view. 30, Plate, ventral view.

band subapically, distal 1/4 and middle of forewing translucent.

Head small, much narrower than pronotum, anterior margin obtusely angled, crown produced slightly beyond anterior margin of eyes, broad, slightly broader than width of eyes, elevated above level of eyes, slightly carinate laterally; eyes large, semiglobular, occupying less than 2/3 of entire dorsal area of head, pronotum and scutellum large; forewing elongate, rounded distally, venation typical, appendix well developed; clypeus long and broad, without median longitudinal carina; clypellus long and narrow, margins expanded distally.

♂. Pygofer in lateral view broad, with long, bladelike caudoventral process and large ornate caudodorsal process, which is enlarged basally, slightly twisted basally and abruptly curved at distal half; aedeagus nearly symmetrical, simple, broad at basal 2/3 and narrowed at distal 1/3 in dorsal view, sinuate in lateral view, apex slightly hooked; gonopore subapical; connective broadly Y-shaped; style long, about as long as aedeagus, narrow at distal 2/3; plate elon-

gate, profusely setose at distal half along outer marginal area.

♀. Seventh sternum large, about 2X as long as preceding segment, caudal margin produced along middle.

Holotype (♂), BRAZIL: Para, Belen Mocambo, 05-III-1977, T. Pimentel (OSU). Allotype ♀, same data as holotype except collector, A. Y. Harada (OSU). Paratypes. BRAZIL: Manaus, 1 ♀, 19-XI., no year, no collector (author's collection), Prata, 1 ♀, 19-VII., no year, no collector (OSU), Para, Sta. Isabel, 1 ♀, 13-VII-1973, B. Mascarenhas (USNM).

Remarks: *Coelidia cochloea* is most closely related to *simplex* Nielson, and can be separated by the pygofer with the ornate caudodorsal process, which is enlarged basally and narrowed distally.

Coelidia simplex, n. sp.

(Figs. 25-30)

Length: ♂, 8.60 mm.

General color piceous except for narrow translucent apex on forewing, ochraceous

spots on veins, 5 narrow longitudinal lines on pronotum, 3 similar ones on scutellum, and broad ochraceous band on lateral margins of pronotum.

Head small, much narrower than pronotum, anterior margin obtusely angled; crown produced beyond anterior margin of eyes, broad, about as broad as width of eye, carinate laterally; eyes large, semiglobular, occupying nearly 2/3 of entire dorsal area of head; pronotum and scutellum large; forewing (right one missing on holotype) elongate, obtusely rounded distally, appendix well developed; clypeus long and broad, without median longitudinal carina; clypellus long, narrow, lateral margins expanded distally.

♂. Pygofer in lateral view broad, with very long, slender, acuminate caudoventral process and long, fingerlike caudodorsal process; aedeagus nearly asymmetrical, simple, long, narrow, tubular, broadly sinuate in lateral view, apex slightly recurved; gonopore near middle of shaft; connective broadly Y-shaped; style very long, longer than aedeagus, very narrow, tapered distally; plate elongate, with numerous setae along outer margin.

♀. Unknown.

Holotype (♂), PANAMA: Barro Colorado, Canal Zone, forest, 3-VI-1976. H. Wolda (USNM).

Remarks: This species is similar to *cochlea* Nielson in characters of the aedeagus but can be distinguished by caudal processes on the pygofer. The caudoventral process is very long, acuminate, and reaches the apex of the slender, fingerlike caudodorsal process.

Coelidia gladia, n. name

Coelidia spangbergi Nielson 1982 is a junior homonym of *Coelidia spangbergi* Linna-

vuori, 1956, and *Coelidia spangbergi* Metcalf, 1964, and must be replaced.

In my revision of the tribe Teruliini (Nielson 1979), *Docalidia metcalfi* Nielson was proposed as a new name for *Coelidia spangbergi* Metcalf, 1964, nec *Coelidia spangbergi* Linnavuori, 1956. Metcalf (1964) proposed *Coelidia spangbergi* as a new name for *Jassus flavicosta* Spangberg, 1878, nec *Jassus flavicosta* Stål, 1862. *Coelidia spangbergi* Linnavuori was made a junior synonym of *Staloidia dissoluta* (Jacobi) by Nielson (1979). All the Spangberg names originally assigned to *Coelidia* are either synonyms or homonyms and thus are no longer valid.

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